AMENDMENTS TO THE CLAIMS

This listing of the claims replaces all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS

1. (Cancelled)

2. (Cancelled)

3. (Currently Amended) The transmitter as claimed in claim ~~2~~ 25 wherein the tone has a frequency that is well below a data modulation frequency of the primary modulation subsystem.

4. (Currently Amended) The transmitter as claimed in claim ~~2~~ 25 wherein the tone has a frequency that is well above a data modulation frequency of the primary modulation subsystem.

5. (Currently Amended) The transmitter as claimed in claim ~~1~~ 25 wherein the secondary modulation sub-system comprises:

   an ONU identifier source for supplying the ONU identifier to the modulation sub-system to permit the ONU identifier to be modulated onto the optical carrier by the secondary modulation sub-system.

6. (Cancelled)

7. (Currently Amended) The transmitter as claimed in claim ~~6~~ 25 further comprising a latching circuit for receiving timeslot information indicating a timeslot allocated to the ONU, and for toggling the switch to switch the tone to the secondary modulation sub-system at respective boundaries of the timeslot.

Claims 8-24. Cancelled

25. (New) A transmitter for an optical network unit (ONU) for transmitting data over a return data channel of a passive optical network in accordance with a predefined time-sharing protocol, the transmitter comprising:

a laser driver for driving a laser of the transmitter to generate an optical carrier;

a modulation sub-system for modulating data onto the optical carrier generated by the laser; and

a secondary modulation sub-system for impressing an ONU identifier onto the optical carrier, the ONU identifier serving to identify the ONU to a network monitor that monitors the return data channel, the secondary modulation sub-system comprising a tone source for supplying a tone that serves as the ONU identifier to a tone modulator to modulate the ONU identifier onto the optical carrier; and

a switch for selectively switching the tone to the tone modulator so that the tone modulator does not impress the ONU identifier onto the optical carrier during a timeslot allocated to the ONU.